HaifaStim™ Force

The perfect supplement for uniform development of vines



Filippo Correddu – NutriHaitec Vines Crop Leader
Dario Bittoni – BSM Business Developer



HaifaStim® Force

Activator of cellular multiplication & growth

A natural liquid extract that combines the bioactive strength of **Free Amino Acids**, polyphenols, mannitol, betaine and **natural phytohormones** compounds.

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haifa-group.com

HaifaStim™ Force

COMPOSITION

	Force
Total Nitrogen (N)	3,0%
Total Organic Carbon (TOC)	10,4 %
Biochemically active substances (of vegetable origin)	
Total Amino Acids & Peptides	15,0 %
Free L-Amino Acids	**10,1 %**
Mannitol	0,22 %
Betaine	0,17 %
Citochinines	**112 ppm**
Auxins	**24 ppm**

PHYSICAL & CHEMICAL PROPERTIES

		Force
Specific Gravity (g/cm3 at 25°C)		1,12
Dry matter (%)		27,9
pH and Electrical Conductivity (EC)		
Concentration p/v	0,1%	1%
EC (dS/m @ 25°C)	0,22	2,7
pH (@ 25°C)	**3,6**	**3,1**

Allowed in Organic Farming in accordance with EU Reg. 2018/848 and 2021/1165.

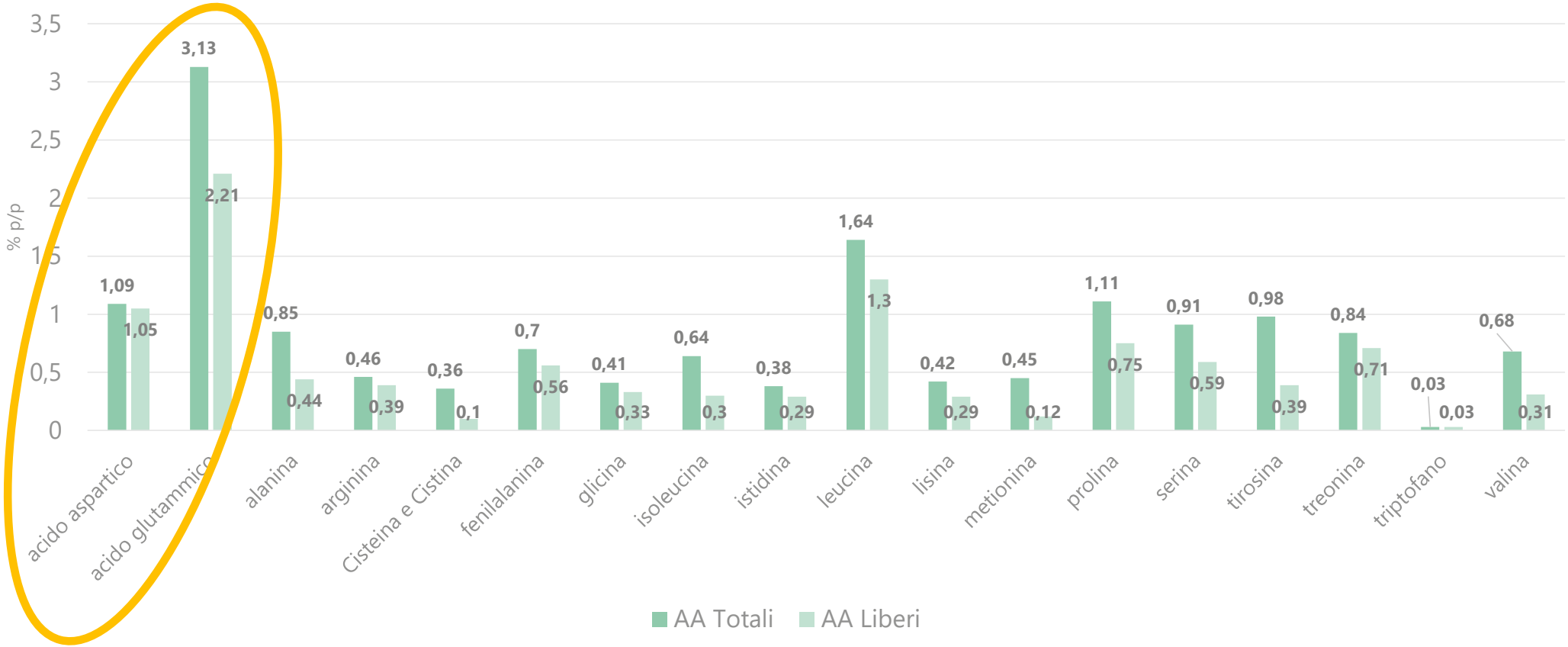
Approved by ECOCERT INPUTS

Controllato da Ecocert SA F - 32600

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HaifaStim™ Force

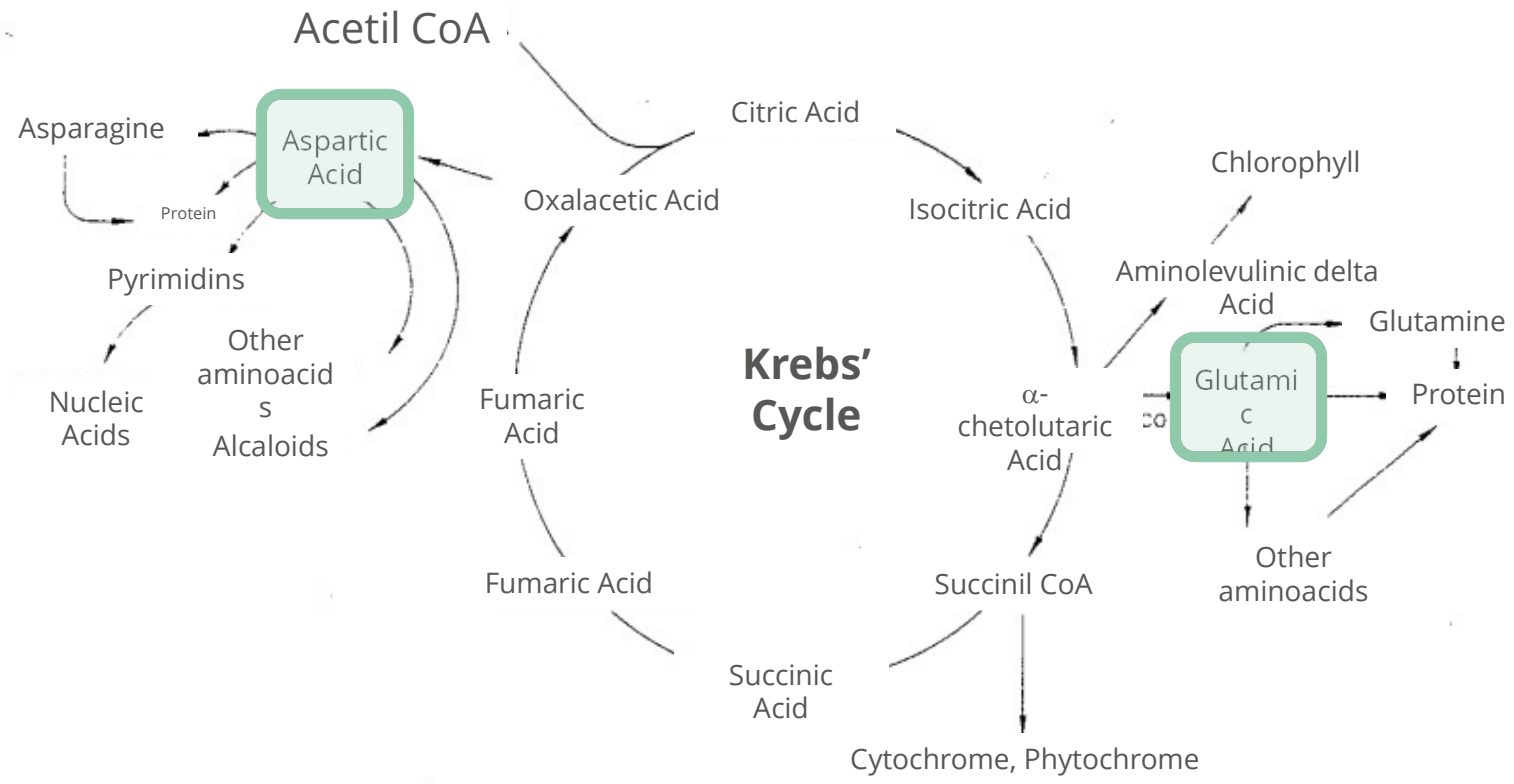
AMINOGRAM



HaifaStim™ Force

AMINOGRAM

Aspartic acid and glutamic acid are both precursors to other essential amino acids

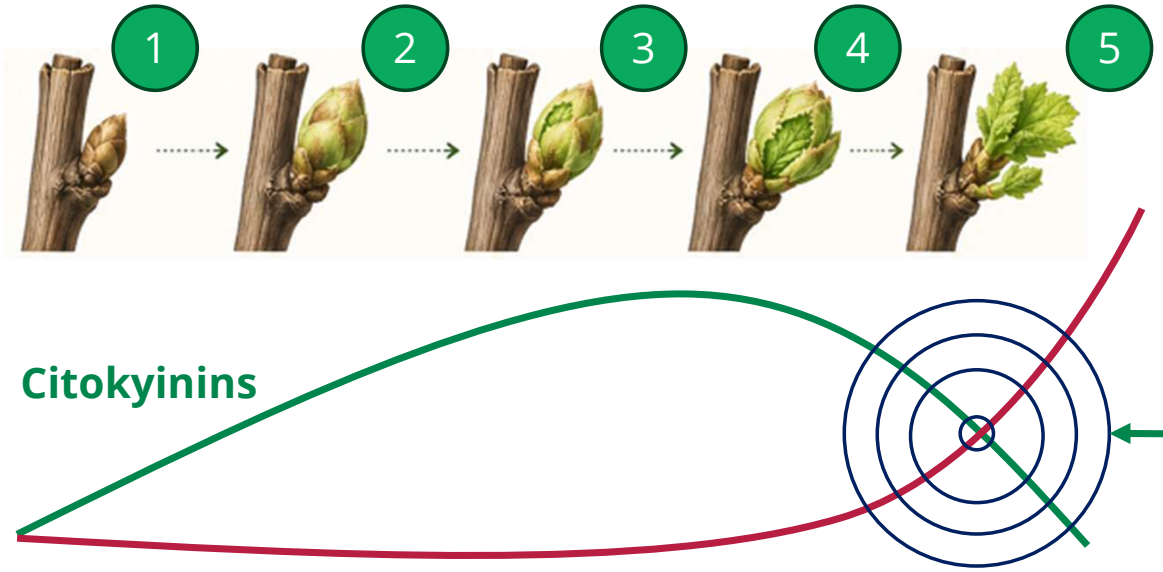


Vegetal Physiology Fundamental
Patron Editore

HaifaStim™ Force

PHYTOHORMONES SPECTRUM

Citokyinins.....112 ppm
Auxins.....24 ppm



AGRONOMICAL POSITIONING

After the sprouting the endogenous production of Auxins overcome the Cytokinins bringing to apical dominance.

HaifaStim Force helps balancing this ratio in order to avoid excess of apical dominance.

Product must be applied from this stage to the flowering to ensure correct shoot development.



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HaifaStim™ Force

GROWTH ACTIVATOR AND CELL MULTIPLICATION

Uniform budding and flowering

Supports cluster formation

Facilitates the delivery of the combined nutrients by foliar application

Crop	Vineyard
Foliar Dose	2,5-3 L/ha
N° Appl.	2-3
Stage	4-6 unfolded leaves (BBCH 14-16) **Visible Clusters (BBCH 53-55)** Berry Set (BBCH 71)

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HaifaStim™ Force

ACIDIFYING ACTION FOR ORGANIC TREATMENTS

	Water	HaifaStim™ Force (250 ml/hl)	HaifaStim™ Force (500 ml/hl)	HaifaStim™ Force (1000 ml/hl)
pH	7,43	6,05	5,06	3,61
HCO_3^- (mmol/L)	5,35	3,35	1,95	-
EC (mS/cm)	0,698	1,285	1,770	2,973

DOSES AND METHODS OF USE

Add to the tank before the plant protection products

Hard Water (> 5 mmol/L HCO_3^-)

300-350 ml/hl

Soft Water (< 2,5 mmol/L HCO_3^-)

200-250 ml/hl

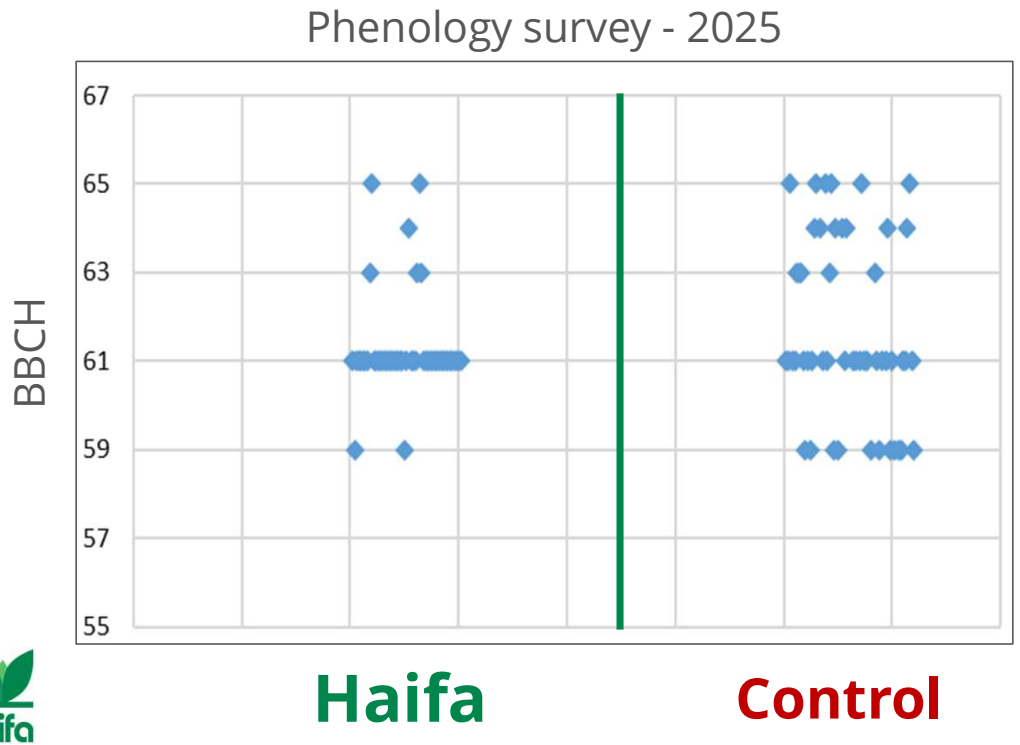
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HaifaStim™ Force

Evaluation of the effectiveness of the HaifaStim™ strategy on Sangiovese in Chianti Classico

HaifaStim™ Force – 2 Treatments at 2.5 L/ha from the visible bunch stage (BBCH 53) to 7-10 days



The progressive accumulation of treatments over the course of the three-year trial led to an increase in the uniformity of the phenological phases, which is fundamental for:

- Effectiveness of phytosanitary treatments
- Planning of crop operations
- Uniform fruit set and berry growth

HaifaStim™ Force





The grapevine suffers greatly from the negative effects of **apical dominance**. As a consequence, this leads to uneven development of clusters and berries along the shoot.

HaifaStim® Force – Technical advantages



HaifaStim® Force

Table Grape

Year: 2022
Place: Grottaglie (Puglia)
Variety: Victoria
Applications: 2

It was possible to **limit apical dominance** and ensure that all clusters developed in the same way.

HaifaStim® Force – Technical advantages



HaifaStim® Force

Table Grape

Year: 2022
Place: Grottaglie (Puglia)
Variety: Victoria
Applications: 2

It was possible to elongate and thicken the cluster stem in order to promote **uniform berry** development.

HaifaStim® Force - Trial set-up

Vegetal Free Amino Acid

Cultivation type: Open field
Substrate type: Soil
Crop: Table grape, cv. Tawny Seedless
Country: Chile, 2024
Number of treatments: 2
Number of replications: 4
Application: Foliar (1500 L/ha)

Number of applications: 2
Application timing:

1. BBCH 53 – Well-visible inflorescences
2. BBCH 55 - the inflorescences expand, and the individual flowers are clustered closely together (ab 7 days after BBCH 53)



List of Treatments

	Dosage	Stage
1. UTC		
2. HaifaStim Force		
Vegetal Free Amino Acid – 10,1%	2,5 L/ha	53 - 55
3. Competitor 1		
Free Amino Acid – 10,4 %	2,5 L/ha	53 - 55
4. Competitor 2		
NPK + Free AA – 14,4 %	3 L/ha	53 - 55

HaifaStim® Force - Trial set-up

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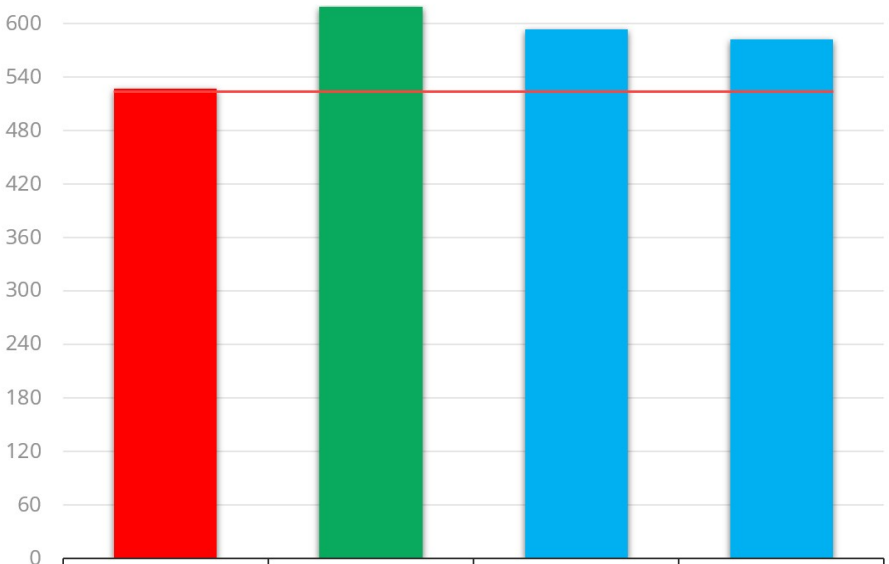
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HaifaStim® Force - Results

Vegetal Free Amino Acid

Tawny seedless

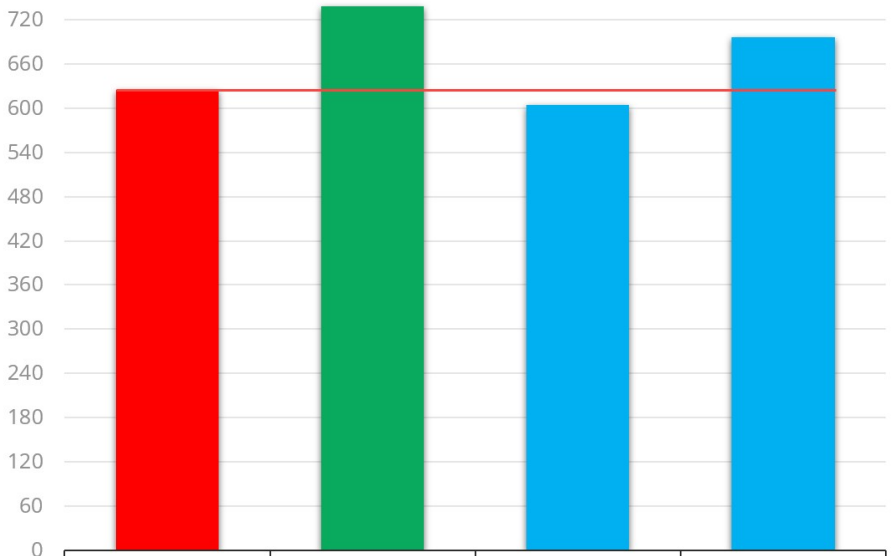
Average weight of the bunch stems



	UTC	HS Force	Competitor 1	Competitor 2
Average weight (g)	526,9	618,7	593,1	582,3

Thompson seedless

Average weight of the bunch stems

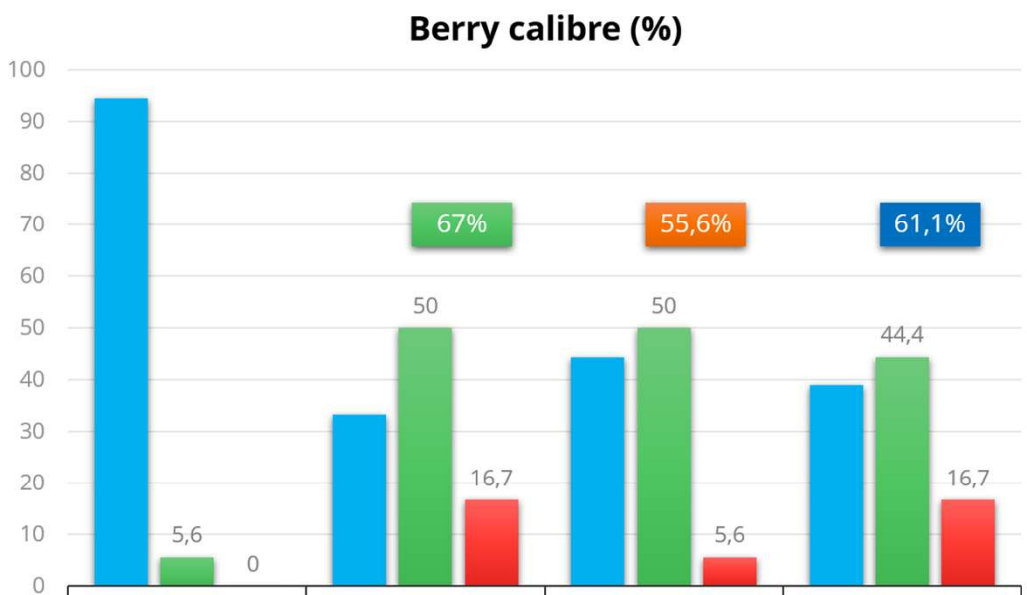


	UTC	HS Force	Competitor 1	Competitor 2
Average weight (g)	624,82	737,58	604,98	696,44

HaifaStim® Force - Results

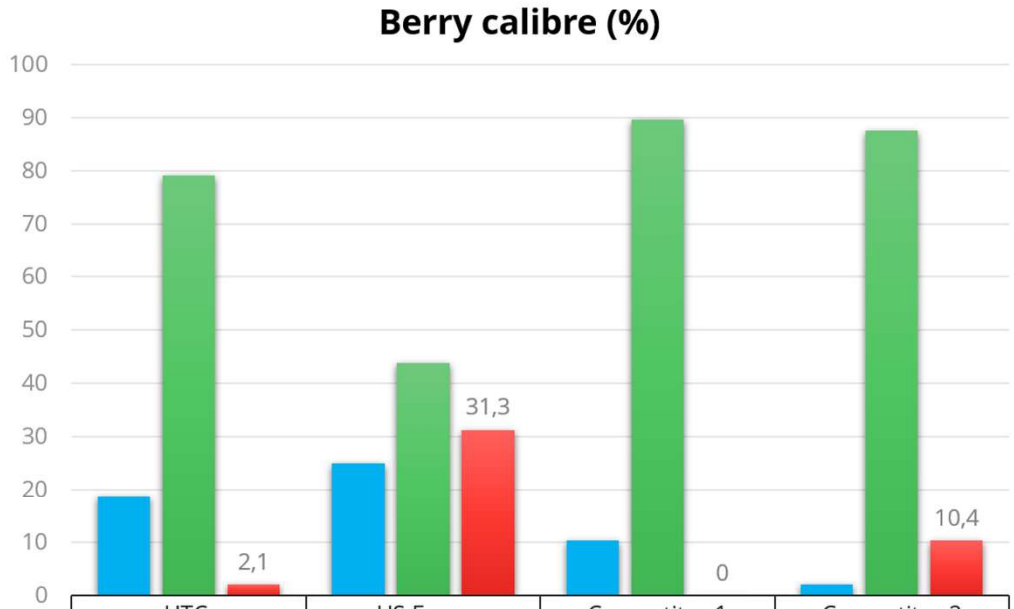
Vegetal Free Amino Acid

Tawny seedless



	UTC	HS Force	Competitor 1	Competitor 2
< 22 mm	94,4	33,3	44,4	38,9
22 -23 mm	5,6	50	50	44,4
>23 mm	0	16,7	5,6	16,7

Thompson seedless



	UTC	HS Force	Competitor 1	Competitor 2
< 17 mm	18,8	25	10,4	2,1
17,5 - 18,5 mm	79,2	43,8	89,6	87,5
>19 mm	2,1	31,3	0	10,4

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HaifaStim® Force - Results

Vegetal Free Amino Acid

GUALUPANO







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HaifaStim® Force – Results Tawny seedless

Vegetal Free Amino Acid





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HaifaStim® Force – Results Thompson seedless

Vegetal Free Amino Acid

GUALUPANO







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HaifaStim™ Force Strategy



4-6 leaves
BBCH 14-16



Visible
Clusters
BBCH 53



Separated
Clusters
BBCH 57



Berry
Set
BBCH 71



Berries
Touching
BBCH 77



Begin
Veraison
BBCH 81

HaifaStim™ Force
2-3 Applications a 2,5-3 L/ha



Haifa

More info at
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